



Research Article

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Research on standard system of the main city landscape color of Japan

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ABSTRACT

City landscape color has an important significance in shaping the visual image, the city culture and history of the city. However, for the city color at moment, the problem of how to use the city characteristic exists in the present stage of our country, the loss of city culture and geographical characteristics of the landscape color is not rare. Therefore, the author did an in-depth research to the Japanese city landscape color system that in the forefront of international research in this area, summarizes the present landscape main color setting, in order to provide some helpful advices and reference to the city landscape color planning criterion.

Keywords: landscape color; main color; Research on standards system; Japan

INTRODUCTION

City landscape color that shape the visual image of the city, has an important significance in city culture and history. Whether the new town planning, or the transformation of the old city and repair of city design, the need to continue the site, increase memory city identity to residents, city characteristics so as to enhance the recognition of the city. In the information age, high recognition of a city can not only reflect the quality of city, to provide the necessary assistance to the economic development of the city[1]. Based on this situation, city color planning and research in recent years has gradually attracted attention from the academia and government planning departments. Although in the last century, the study of color has different color system, color psychology research and application achievements. In the past, we were only from the aspect of city planning and architectural design, color theory in terms of color, a variety of factors into the historical, geographical environment to guide the actual project has not been able to meet the needs of city color planning and design. At the same time, as the process of building high-speed city in our country and town brought about a series of problems, we need to update the color cognition and appropriate research level, for the planning and design of city color need more systematic theory system as well as more mature practical guidance.

1. THE BASIC PRINCIPLES OF THE STATUS OF CHINA CITY LANDSCAPE MAIN COLOR

At present, for the color of city, the problem of how to use the city characteristic exists in the present stage of our country, the lost city cultures and geographical characteristics of the landscape color is common[3]. Although the domestic some experts and scholars have carried out some research, but the systematic and comprehensive research achievements are lack. The city of color as a starting point, it is based on the design of city, region characteristic of the city from the perspective of complex objects, and finally provide scientific theory for the establishment of a practical, regional city color planning theory basis and feasible means. Therefore, the author of this thesis explore some in-depth research on Japanese city landscape color system, which in leading position of the international academic area, summarizes the present landscape color body color setting, in order to provide some useful advices and references in developing a city landscape color planning criterion.

3. RESEARCH ON BASIC STANDARDS OF JAPANESE CITY LANDSCAPE MAIN COLOR

3.1 Types of landscape color reference

Japan's current city landscape color system was founded by Mr. Yoshida Shingo and his team, the standard setting in a strong logic and practicability. So this criterion in the street planning and design, to the minimum is above a certain size building exterior wall and roof of the tone color and provide a reference value shall comply with the applicable range of color. At the same time, the recommended standard color range is developed in the research basis, in accordance with local environment, is a good color scheme. As shown in (Table 1), according to the numerical analysis index criteria given Munsell system applicable to the city recommended the usage scope, the minimum value should not be exceeded. Such a guidebook would allow the planning department and the designer can consult quickly and accurately, to find the applicable region of the color range index[4].

3.1.1 Color reference value range

The color of the reference range is more detailed in the Munsell hue ring, will be applied to the exterior wall and building roof color. It will be easier to separate the surrounding color at the beginning of construction which is set out of range, avoid any color abuse and misuse. (Table 2)

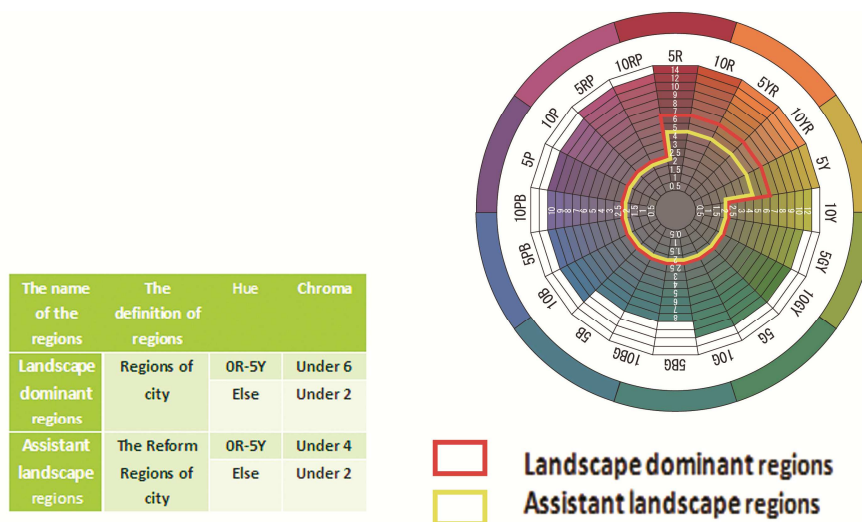


Table 2 color reference range

3.1.2 Recommended range value of color

The recommended values of color according to the result of the investigation, which is full of rich natural landscape color combined with humanism[4], developed with regional features that are more suitable to the local color range. In accordance with the division of landscape function area, a set of perfect color recommended range will be established according to the characteristics of each function. (Table 3)

Table 3 the recommended range of color

Regional division of landscape planning	Division of landscape color region	Remarks
City landscape dominant area	Industrial Zone color region	
	Commercial color region	Commercial area residential building color range,
	Business color region	Residential area
	Residential color region	The planning of residential land
	Historical and Cultural District color region	inherent colorwith emphasize on historical and cultural landscape
Affiliated regional city landscape	The field area color region	follow the city landscape color positioning

Table 4 color recommended value of application objects

Application site	The application object		Color standard	
			The numerical value of Reference	The numerical value of recommendation
The external walls of building	Basic Color	The Basic color on exterior walls of building, the majority of the overall area of the wall,(except the roof area, the area ratio in the landscape dominant area .Should be more than 4/5, more than 9/10 in the landscape the auxiliary area).	◆	◆
	Underline Color	It's bring about change and personality of the external walls of building (remove the roof area, the area ratio should be less than the dominant area in the landscape1/5, less than 1/10 in the landscape the auxiliary area).	-- Exclusive of Reference value	◆
The roof of building	The roof color	The color of roof	◆	◆

3.2 Application of reference value object of city landscape color

3.2.1 Color value of application objects

The application object to numerical value of Referencecoloris the externalwalls ofbuilding-- "TheBasicColor ", the roof of building --"The roofcolor".

Table 5 regions with independent color system

The name of the area	Hue	Chroma
Surrounding 100 meters of the site	5YR~10YR	Under 5
	0Y~5Y	Under 3
	else	Under 2

3.2.2 Recommended values of the application object color

The application object color of recommended values for exterior wall, are "tone color" and "emphasize color", and "color roof". (Table 4)

4. THE EXCEPTION OF CITY LANDSCAPE COLOR WITHIN THE STANDARD SYSTEM

The following City landscape regioncould not in comply with the city landscape color standards implementation, due tonon-controllable factors and inherent color.

4.1 city has independent color system region

In some specific area in the city, such as historical and cultural zone, children's playground and alert zones, which have unique form of color system; in these areas, priority should be given in the use of natural color. The following example (Table 5) make for an independent color system color reference.

4.2 The natural elements of color

Wood, stone and other materials belongs to the local natural environment factor, which has natural and semi natural color, would not be restricted by the color reference control during application.

5. RESEARCH AND APPLICATION TO THE CITY OVERALL LANDSCAPE MAIN COLOR

5.1 Case of external wall base color reference (Figure 1)

Above is the basic system of the main color, it will enable the user to quickly and accurately use the Munsell hue ring on the 8000 kinds of color within this method for screening, from small to large and from rough to fine, in the selection for the city color range. Therefore, designers can match color within this range according to their needs.

(Figure 1.reference color collocation to the exterior walls tone color, Saitama, Japan.)

No color	Red (R)		Yellow Red (YR)		Yellow (Y)		Yellow green (GY)
N-90 N9. 0	05-90A 5R9. 0/0. 5	05-85B 5R8. 5/1. 0	15-90A 5YR9. 0/0. 5	19-90A 10YR9. 0/0. 5	27-80B 7. 5Y8. 0/1. 0	25-90C 5Y9. 0/1. 5	45-90A 5G9. 0/0. 5
N-80 N8. 0	05-80A 5R8. 0/0. 5	09-60B 10R6. 0/1. 0	15-80B 5. 0YR8. 5/1. 0	19-85B 10YR8. 5/1. 0	22-85C 2. 5Y8. 5/1. 5	29-85B 10Y8. 5/1. 0	45-85A 5G8. 5/0. 5
	05-80B 5R8. 0/1. 0		15-80A 5YR8. 0/0. 5	19-80C 10YR8. 0/1. 5	22-80B 2. 5Y8. 0/1. 0	29-80B 5Y8. 0/1. 0	35-80B 5GY8. 0/1. 0



Figure 2 Sketch of city main building roof, wall color

5.2 Schematic diagram of the main building roof, wall color landscape (Figure 2)

Finally, decision makers and designers can would have a comprehensive control to the whole landscape of a city using this method, and to draw an overall color diagram to the wall and roof of the whole city. It is very practical in providing certain data and standardsto the landscape color, for future planning, development and reformof city.

CONCLUSION

City as one of the most important living environment, is closely related to the survival and development of human beings[1]. Therefore, the city's landscape color reflect the unique historical features, and is effective method to the demonstrationfor the charm of city. Therefore, this article investigate the development of standards of Japanese city main landscape color, discovered the rules and methods of its main color planning. This would provide some thoughtsto the main color planning in the future, as well as new ideas in accordance with inheritance and renovation of traditional city colorin China.

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